Name: _____

p1106: Solve by factoring (v16)

1. Solve the equation
$$x^2 - 4x - 32 = 0$$

$$(x - 8)(x + 4) = 0$$
$$x = -4$$
$$x = 8$$

2. Solve the equation
$$x^2 - 17x + 72 = 0$$

$$(x - 8)(x - 9) = 0$$
$$x = 9$$
$$x = 8$$

3. Solve the equation
$$7x^2 + 12x + 49 \;=\; 6x^2 - x + 9$$

$$x^2 + 13x + 40 = 0$$
$$(x + 8)(x + 5) = 0$$
$$x = -5$$
$$x = -8$$

4. Solve the equation
$$6x^2 - 2x + 9 \;=\; 5x^2 + 7x - 9$$

$$x^2 - 9x + 18 = 0$$
$$(x - 3)(x - 6) = 0$$
$$x = 6$$
$$x = 3$$

5. Solve the equation
$$7x^2 + 2x - 13 \;=\; 6x^2 - 5x + 5$$

$$x^2 + 7x - 18 = 0$$
$$(x - 2)(x + 9) = 0$$
$$x = -9$$
$$x = 2$$

6. Solve the equation
$$7x^2 - 30x + 8 = 0$$

$$(7x - 2)(x - 4) = 0$$
$$x = 4$$
$$x = \frac{2}{7}$$

7. Solve the equation
$$5x^2 - 7x - 6 = 0$$

$$(5x + 3)(x - 2) = 0$$
$$x = 2$$
$$x = \frac{-3}{5}$$

8. Solve the equation
$$4x^2 - 8x - 11 \;=\; 2x^2 - 7x + 4$$

$$2x^2 - x - 15 = 0$$
$$(2x + 5)(x - 3) = 0$$
$$x = 3$$
$$x = \frac{-5}{2}$$

9. Solve the equation
$$6x^2 - 4x - 3 \;=\; 3x^2 + 7x + 1$$

$$3x^2 - 11x - 4 = 0$$
$$(3x + 1)(x - 4) = 0$$
$$x = 4$$
$$x = \frac{-1}{3}$$

10. Solve the equation
$$3x^2 + 10x - 11 \;=\; x^2 + 9x - 8$$

$$2x^2 + x - 3 = 0$$
$$(2x + 3)(x - 1) = 0$$
$$x = 1$$
$$x = \frac{-3}{2}$$